

CLAIMS

1. A communication system which performs data communication by a discrete multi-tone modem scheme between a plurality of data communication units using the time-division half-duplex communication function, wherein the ratio between the data transmission time suitable for data transmission and the quasi-data transmission time other than the data transmission time within one period changes dynamically,

characterized in that bits are assigned in such a manner that the data of a given period is transmitted during the data transmission time of one period, and wherein dummy bits are assigned to the portion of the data transmission time to which the data to be transmitted has not assigned.

2. A communication system which performs data communication by a discrete multi-tone modem scheme between a plurality of data communication units using the time-division half-duplex communication function, wherein the ratio between the data transmission time suitable for data transmission and the quasi-data transmission time other than the data transmission time within one period changes dynamically,

characterized in that bits are assigned in such a manner that the data of a given period is transmitted during the data transmission time and the quasi-data transmission time of one period, and wherein dummy bits are assigned to the portion of

the data transmission time and the portion of the quasi-data transmission time to which the data to be transmitted has not assigned.

5 3. The communication system according to claim 1,
characterized by appropriately selecting a low transmission
delay mode in which bits are assigned in such a manner that the
data of a given period is transmitted during the data
transmission time of one period and dummy bits are assigned to
10 the portion of the data transmission time to which the data to
be transmitted has not assigned, or a normal mode in which the
data to be transmitted are assigned uniformly over the data
transmission time, and the bits for the data to be transmitted
are assigned in accordance with the selected mode.

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4. The communication system according to claim 2,
characterized by appropriately selecting a low transmission
delay mode in which the data of a given period are assigned to
the data transmission time and the quasi-data transmission time
20 of one period and dummy bits are assigned to the portion of the
data transmission time and the quasi-data transmission time to
which the data to be transmitted has not assigned, or a normal
mode in which the data to be transmitted are assigned uniformly
over the data transmission time, and bits for the data to be
25 transmitted are assigned in accordance with the selected mode.

5. A communication system which performs data communication by a discrete multi-tone modem scheme between a plurality of data communication units using the time-division half-duplex communication function, wherein the ratio between the data transmission time suitable for data transmission and the quasi-data transmission time other than the data transmission time within one period changes dynamically,

characterized in that all the data of a given period are reproduced based on the portion of the received data assigned to the data transmission time of one period.

6. A communication system which performs data communication by a discrete multi-tone modem scheme between a plurality of data communication units using the time-division half-duplex communication function, wherein the ratio between the data transmission time suitable for data transmission and the quasi-data transmission time other than the data transmission time within one period changes dynamically,

characterized in that all the data of one period are reproduced based on the portion of the received data assigned to the data transmission time and the quasi-data transmission time of one period.

7. The communication system according to claim 5,

characterized by appropriately selecting a low transmission delay mode in which bits are assigned in such a manner that the data of a given period can be transmitted during the data transmission time of one period and dummy bits are assigned to the portion of the data transmission time to which the data to be transmitted has not assigned, or a normal mode in which the data to be transmitted are assigned uniformly over the data transmission time, and data are reproduced in accordance with the selected mode.

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8. The communication system according to claim 6, characterized by appropriately selecting a low transmission delay mode in which bits are assigned in such a manner that the data of a given period can be transmitted during the data transmission time and the quasi-data transmission time of one period and dummy bits are assigned to the portion of the data transmission time and the quasi-data transmission time to which the data to be transmitted has not assigned, or a normal mode in which the data to be transmitted are assigned uniformly over the data transmission time, and data are reproduced in accordance with the selected mode.

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9. A communication method of performing data communication by a discrete multi-tone modem scheme between a plurality of data communication units using the time-division half-duplex

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communication function, wherein the ratio between the data transmission time suitable for data transmission and the quasi-data transmission time other than the data transmission time within one period changes dynamically, characterized in that bits are assigned in such a manner that the data of a given period is transmitted during the data transmission time of one period, and wherein dummy bits are assigned to the portion of the data transmission time to which the data to be transmitted has not assigned.

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10. A communication method of performing data communication by a discrete multi-tone modem scheme between a plurality of data communication units using the time-division half-duplex communication function, wherein the ratio between the data transmission time suitable for data transmission and the quasi-data transmission time other than the data transmission time within one period changes dynamically, characterized in that bits are assigned in such a manner that the data of a given period is transmitted during the data transmission time and the quasi-data transmission time of one period, and wherein dummy bits are assigned to the portion of the data transmission time and the portion of the quasi-data transmission to which the data to be transmitted has not assigned.

25 11. The communication method according to claim 9,

characterized by appropriately selecting a low transmission delay mode in which bits are assigned in such a manner that the data of a given period is transmitted during the data transmission time of one period and dummy bits are assigned to the portion of the data transmission time to which the data to be transmitted has not assigned, or a normal mode in which the data to be transmitted are assigned uniformly over the data transmission time, and the bits for the data to be transmitted are assigned in accordance with the selected mode.

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12. The communication method according to claim 10, characterized by appropriately selecting a low transmission delay mode in which the data of a given period are assigned to the data transmission time and the quasi-data transmission time of one period and dummy bits are assigned to the portion of the data transmission time and the quasi-data transmission time to which the data to be transmitted has not assigned, or a normal mode in which the data to be transmitted are assigned uniformly over the data transmission time, and bits for the data to be transmitted are assigned in accordance with the selected mode.

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13. A communication method of performing data communication by a discrete multi-tone modem scheme between a plurality of data communication units using the time-division half-duplex communication function, wherein the ratio between the data

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transmission time suitable for data transmission and the quasi-data transmission time other than the data transmission time within one period changes dynamically, characterized in that all the data of a given period are reproduced based on the portion of the received data assigned to the data transmission time of one period.

14. A communication method of performing data communication by a discrete multi-tone modem scheme between a plurality of data communication units using the time-division half-duplex communication function, wherein the ratio between the data transmission time suitable for data transmission and the quasi-data transmission time other than the data transmission time within one period changes dynamically, characterized in that all the data of one period are reproduced based on the portion of the received data assigned to the data transmission time and the quasi-data transmission time of one period.

15. The communication method according to claim 13, characterized by appropriately selecting a low transmission delay mode in which bits are assigned in such a manner that the data of a given period can be transmitted during the data transmission time of one period and dummy bits are assigned to the portion of the data transmission time to which the data to be transmitted has not assigned, or a normal mode in which the

data to be transmitted are assigned uniformly over the data transmission time, and data are reproduced in accordance with the selected mode.

- 5 16. The communication method according to claim 14, characterized by appropriately selecting a low transmission delay mode in which bits are assigned in such a manner that the data of a given period can be transmitted during the data transmission time and the quasi-data transmission time of one
10 period and dummy bits are assigned to the portion of the data transmission time and the quasi-data transmission time to which the data to be transmitted has not assigned, or a normal mode in which the data to be transmitted are assigned uniformly over the data transmission time, and data are reproduced in
15 accordance with the selected mode.